

Remarks

This Reply is in response to the Office Action mailed May 28, 2009.

I. Interview Summary

Applicant's attorney thanks the Examiner for the courtesy of a telephone interview conducted on August 20, 2009. During the interview, Applicant's attorney and the Examiner discussed amendments to Claim 1 and the cited prior art reference Lee. Subsequent to the discussion, Examiner indicated that a further search would be performed in an effort to expedite the prosecution of this case.

II. Summary of Rejections

Prior to the Office Action mailed May 28, 2009, Claims 11, 15 and 19 were pending in the Application. In the Office Action, Claims 11, 15 and 19 were rejected under 35 U.S.C. 102(a), as being anticipated by Lee (U.S. Patent No. 6,480,865).

III. Summary of Amendments

The present Response hereby amends Claims 11 and 19, cancels Claim 15 and adds new Claims 23-30, leaving for the Examiner's present consideration Claims 11, 19 and 23-30. Reconsideration of the Application in light of the above amendments and the following remarks is respectfully requested.

IV. Claim Rejections under 35 U.S.C. § 102(a)

In the Office Action mailed May 28, 2009, Claims 11, 15 and 19 were rejected under 35 U.S.C. 102(a), as being anticipated by Lee (U.S. Patent No. 6,480,865).

Claim 11

Claim 11 has been amended to more clearly define the embodiment therein. As amended, Claim 11 currently defines:

11. *A computer-implemented method comprising:
generating a transformation file by employing a query language, said transformation
file containing a set of rules to transform data between two or more formats
having different shapes;
attaching the transformation file to a workflow, such that the set of rules are*

*referenced from inside the workflow;
associating, at compile time, a first shape of a first data structure with an intermediate shape representation based on the set of rules of the transformation file, wherein the first shape defines a structure and layout of data in the first data structure;
receiving a second data structure during runtime execution of said workflow, said second data structure having a second shape that is different from the first shape of the first data structure;
converting the second data structure into the intermediate shape representation; and
mapping the second data structure from the intermediate shape representation to the first shape, wherein the second data structure is converted from the second shape into the first shape of the first data structure and using the runtime object as input for a component of said workflow.*

As amended, Claim 11 defines that a transformation file is created by using a query language (e.g. XQuery). This transformation file is attached to a workflow. During compile time, the shape of a first data structure (e.g. a Java data object) is associated with an intermediate shape representation. Then, at runtime, when a second data structure (e.g. an XML document) is received during the execution of the workflow, the intermediate shape representation is applied to that second data structure. At that point, the second data structure can be mapped from the intermediate shape representation to the first shape. The engine can then generate a runtime object. As such, the features of amended Claim 1 enable the use of a query language to transform data formats of one shape to a data format of a different shape.

To illustrate one example of this functionality, a workflow may need to communicate in terms of Java objects, where each object has a particular shape (structure, layout) of data. For instance, a customer Java class may have a shape that defines an ID, a name and an address. However, the workflow may receive an XML document that may have a different shape. In order to translate between the two data shapes, XQuery (query language) can be used to associate an intermediate XML shape representation with each Java object. Thereafter, when the workflow receives an XML document of a different shape, it can apply the intermediate XML shape representation to the XML document and from there, the data can be easily mapped to the Java object shape by the runtime engine.

Lee teaches a facility for adding dynamism to an extensible markup language. More specifically, Lee appears to describe a method for annotating XML documents with invocations to Java objects. Once the XML document is annotated, the DXML processor recognizes elements that are tagged with prefix tags, processes each of these tags and transforms the XML document

accordingly.

As such, it appears that Lee is concerned with techniques for embedding Java functionality into an XML document. However, Applicant respectfully submits that Lee fails to anticipate the features of Claim 11, as amended.

Specifically, Lee fails to disclose *generating a transformation file by employing a query language, said transformation file containing a set of rules to transform data between two or more formats having different shapes*, as defined in amended Claim 11. While Lee does mention the use of the DXML processor (col. 5-6), there is no mention of any transformation file that is created by using a query language.

Furthermore, Lee fails to disclose *attaching the transformation file to a workflow, such that the set of rules are referenced from inside the workflow*, as defined in amended Claim 11. The concept of workflows is not mentioned in Lee.

Furthermore, Lee fails to disclose *associating, at compile time, a first shape of a first data structure with an intermediate shape representation based on the set of rules of the transformation file, wherein the first shape defines a structure and layout of data in the first data structure*, as defined in amended Claim 11. Lee is not concerned with associating any intermediate shape representations at compile time. This feature of claim 1 can allow the system to associate a default XML representation with each Java class, so that this default representation can be later applied to the XML data in order to perform shape mapping. None of this functionality is disclosed in Lee.

In addition, Lee fails to disclose *receiving a second data structure during runtime execution of said workflow, said second data structure having a second shape that is different from the first shape of the first data structure; converting the second data structure into the intermediate shape representation; and mapping the second data structure from the intermediate shape representation to the first shape, wherein the second data structure is converted from the second shape into the first shape of the first data structure*, as defined in Claim 11. This feature of Claim 11 allows the engine to convert between two formats having different shapes by using an intermediate shape representation. Lee fails to disclose these features.

Finally, Lee also fails to disclose using the runtime object which contains data from the second data structure as input into the workflow, as defined in amended Claim 11. Since no workflows appear to be used in Lee, this feature is also not disclosed.

In view of the above comments, Applicants respectfully submit that Claim 11, as amended, is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is

respectfully requested.

Claim 19

Claim 19, while independently patentable, recites limitations that, similarly to those described above with respect to Claim 11, are not taught, suggested nor otherwise rendered obvious by the cited references. Reconsideration thereof is respectfully requested.

Claim 15

The present Response hereby cancels Claim 15, thereby rendering moot any rejection as to this claim

V. Additional Amendments

The present Response hereby adds new Claims 23-28. Applicant respectfully submits that new Claims 23-28 are fully supported by the Specification as originally filed, and consideration thereof is respectfully requested.

VI. Conclusion

In view of the above amendments and remarks set forth above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: August 20, 2009

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